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Date of Deposit	10/19/00

PATENT Attorney Docket No. 17682A-005100

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application of:)
U.S. Patent No. 5,824,796)
Inventors: Charles R. Petrie, Rich B. Meyer, John C. Tabone and Gerald D. Hurst))) REISSUE DECLARATION UNDER) 37 C.F.R. § 1.175(a) AND POWER OF
Serial No.: Not yet assigned) ATTORNEY
Filed: Herewith))
For: CROSS-LINKING OLIGONUCLEOTIDES)))
	,

BOX REISSUE APPLICATION Assistant Commissioner of Patents Washington, D.C. 20231

Sir:

We, Charles R. Petrie, Rich B. Meyer, John C. Tabone and Gerald D. Hurst declare as follows:

- 1. Charles R. Petrie of 18459 NW 196th Place, Woodinville, Washington 98072, Rich B. Meyer of 3739 Hamilton Way, Redwood City, California 94062, John C. Tabone of 12117 NE 166th Place, Bothell Washington 98011 and Gerald D. Hurst of *address unknown*, are citizens of the United States of America.
- 2. The entire right, title, and interest to U.S. Patent No. 5,824,796, issued October 20, 1998, is vested in Epoch Biosciences, Inc., a Delaware corporation, by assignment. Epoch Biosciences, Inc. has a regular and established place of business in Redmond, Washington 98052. An assignment from us to Microprobe Corporation (now Epoch Biosciences, Inc.) was recorded on October 26, 1988 at Reel 4963, Frame 220 for parent application Serial No. 250,474 and on July 24, 1989 at Reel 5162, Frame 48 for parent application Serial No. 353,857.

- 3. We are the original, first and joint inventors of the invention described and claimed in the above-identified United States Letters Patent and the claims added by the above referenced reissue application, for which invention we seek a reissue of the aforesaid Letters Patent.
- 4. We do not know and do not believe that said invention was ever known or used in the United States of America before our invention thereof.
- 5. We do not know and do not believe that said invention was in public use more than one year prior to filing the original application for U.S. Patent No. 5,824,796.
- 6. We do not know and do not believe that the invention was on sale, within the meaning of 35 USC 102(b), in this country more than one year prior to the filing date of said original application.
- We also believe the original patent to be partly or wholly inoperative or 7. invalid because of error without deceptive intent on our part. We believe the original patent to be partly or wholly inoperative or invalid because we claimed less than that to which we had a right to claim in the patent. In particular we believe that it was error not to include those compounds in which the linking groups between the nucleic acid bases and the reporter groups were unsaturated alkyl chains, such as for example, C2-C12 alkenylene and C2-C12 alkynylene in the original patent. New claims 16 through 44 are now added as reissue claims. The errors which resulted in this application for reissue and resulted in such claims not being included in the original patent arose due to our failure to appreciate the extent to which the original claims included elements which unduly limited the scope of protection afforded our invention. Our original patent claims, see claims 1-15, for example, contained claims to oligonucleotides and compounds in which crosslinking groups and reporter groups are attached to the oligonucleotide or compound via a saturated alkylene chain that is optionally interrupted by a heteroatom (e.g., O, NH or S). We believe we are also entitled to claims drawn to intermediates in the preparation of the claimed compounds that terminate in a heteroatom or protected form thereof.
- 8. More specifically, in the original application, we failed to recognize and appreciate features and combinations of the invention which we invented and which we believe are patentable over the prior art. We have added new claims 16-44 to other oligonucleotides and compounds of modified pyrazolo[3,4-d]pyrimidines and other pyrimidine bases to correct our error in not so claiming in our original patent. We believe this occurred in part because our preferred embodiment was the cross-linking oligonucleotides, and we failed to recognize that certain intermediates and other species of labeled compounds and oligonucleotides could be claimed.
- 9. We have reviewed and understand the contents of the attached specification and claims, including the new claims as presented in this application for reissue of the original Letters Patent.

- 10. We acknowledge the duty to disclose information of which we are aware and which is material to the examination of this application for reissue of the original Letters Patent in accordance with 37 C.F.R. § 1.56.
- 11. The aforementioned errors in claiming less than we had a right to claim arose without any deceptive intention on our part and was only recognized as a result of comparing the issued claims with the business interests of Epoch Pharmaceuticals, Inc., now Epoch Biosciences, Inc.
- 12. We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.
- 13. We hereby appoint the following attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: William M. Smith, Reg. No. 30,223, William B. Kezer, Reg. No. 37,369, Eugenia Garrett-Wackowski, Reg. No. 37,330, Joseph R. Snyder, Reg. No. 39,381 and Kevin L. Bastian, Reg. No. 34,774.
- 14. Please send all correspondence to Townsend and Townsend and Crew LLP, ATTN: William B. Kezer, Two Embarcadero Center, 8th Floor, San Francisco, California 94111-3834. Direct all telephone calls to Mr. Kezer at (415) 576-0200.
- 15. This declaration may be executed in counterpart and by copy with the same force and effect as if executed as one complete and integrated document.

Full name of first inventor. Charles R. Petrie
Inventor's signature: Marly R. Petrice 10/16/2000
Date: 10/16/2000 Country of Citizenship: U.S.A.
Residence: 18459 NW 196th Place, Woodinville, Washington 98072
Full name of second inventor: Rich B. Meyer
Inventor's signature:
Date: Country of Citizenship: <u>U.S.A.</u>
Residence: 3739 Hamilton Way, Redwood, California 94062
Full name of third inventor: <u>John C. Tabone</u> Inventor's signature:
Date: Country of Citizenship: <u>U.S.A.</u>
Residence: 12117 NE 166th Place, Bothell Washington 98011
Full name of third inventor: <u>Gerald D. Hurst</u>
Inventor's signature:
Date: Country of Citizenship: U.S.A.
Residence: Unknown

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PATENT

Attorney Docket No. 17682A-005100

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application of:)
U.S. Patent No. 5,824,796)
Inventors: Charles R. Petrie, Rich B. Meyer, John C. Tabone and Gerald D. Hurst)) REISSUE DECLARATION UNDER
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)

BOX REISSUE APPLICATION

Assistant Commissioner of Patents

Washington, D.C. 20231

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Inventor's signature:
Date: Country of Citizenship: <u>U.S.A.</u>
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Full name of third inventor: <u>John C. Tabone</u>
Inventor's signature: Date: Country of Citizenship: _U.S.A.
Date: Country of Citizenship:A.
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Full name of third inventor: <u>Gerald D. Hurst</u>
Inventor's signature:
Date: Country of Citizenship: <u>U.S.A.</u>
Residence: Unknown

PATENT

Attorney Docket No. 17682A-005100

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application of:	
U.S. Patent No. 5,824,796))
Inventors: Charles R. Petrie, Rich B. Meyer, John C. Tabone and Gerald D. Hurst)) REISSUE DECLARATION UNDER) 37 C.F.R. § 1.175(a) AND POWER OF
Serial No.: Not yet assigned) ATTORNEY
Filed: Herewith	,))
For: CROSS-LINKING OLIGONUCLEOTIDES)))

BOX REISSUE APPLICATION Assistant Commissioner of Patents

Washington, D.C. 20231

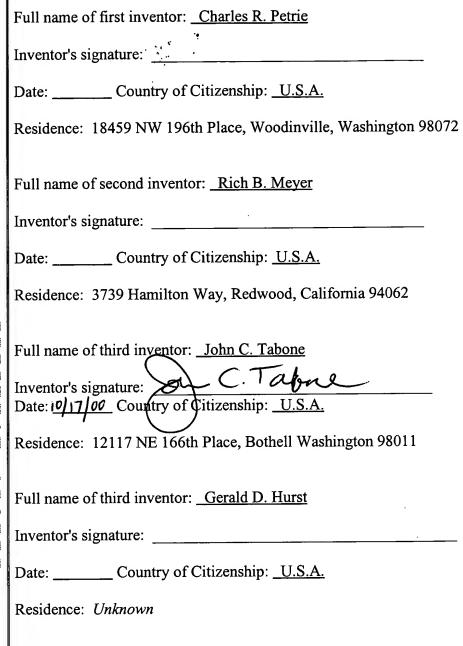
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- 12. We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.
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- 15. This declaration may be executed in counterpart and by copy with the same force and effect as if executed as one complete and integrated document.



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PATENT 17682A-005100

> 1c853 U.S. PTO 09/693213

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application of:

Petrie et al.

Patent No.: 5,824,796

Issued: October 20, 1998

Application No.: Not Yet Assigned

Filed: Herewith

For: CROSS-LINKING OLIGONUCLEOTIDES

BOX REISSUE APPLICATION
Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

The undersigned assignee, Epoch Biosciences, Inc., of the accompanying reissue application for the reissue of letters patent entitled "CROSS LINKING OF OLIGONUCLEOTIDES," U.S. Patent No. 5,824,796, granted October 20, 1998, of which Epoch Biosciences, Inc. is the sole owner by assignment, and on whose behalf and with whose assent the accompanying reissue application is made, hereby offers to surrender said Letters Patent. An order for title report is enclosed herewith.

EPOCH BIOSCIENCES, INC.

REISSUE APPLICATION ASSENT BY

THE ASSIGNEE AND OFFER TO

SURRENDER PATENT

Date: 16 OCT 2000

By: La Sule

Name: WILLIAM G. GEROER

Title: CEO

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Date of Deposit	9100	



ASSENT BY ASSIGNEE FOR FILING

STATEMENT UNDER 37 C.F.R. § 3.73(b)

REISSUE APPLICATION, AND

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In	re	Reissue	App]	lication	of:
			r r		

Petrie et al.

Patent No.: 5,824,796

Issued: October 20, 1998

Application No.: Not Yet Assigned

Filed: Herewith

For: CROSS-LINKING **OLIGONUCLEOTIDES** .

BOX REISSUE APPLICATION Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

Epoch Biosciences, Inc. is the assignee of one hundred percent (100%) interest in the above-identified original United States patent. Epoch Biosciences, Inc. hereby assents to the accompanying application for reissue.

Epoch Biosciences, Inc.

By:	<u> </u>	Suler	
Dotos	14. 0	CT 2000	
Date:	16	C1 2000	

Express Mail Label No. EL008722715US

STATEMENT UNDER 37 C.F.R. § 3.73(b)

Epoch Biosciences, Inc., a Delaware corporation, certifies that it is assignee of the entire right, title, and interest in the above-identified patent application by virtue of an assignment from the inventors to Microprobe Corporation (now Epoch Biosciences, Inc.) recorded in the United States Patent and Trademark Office on October 26, 1988 at Reel 4963, Frame 220 for parent application Serial No. 250,474 and on July 24, 1989 at Reel 5162, Frame 48 for parent application Serial No. 353,857.

The undersigned William Gerber, hereby declares that he is authorized to sign this statement on behalf of the assignee, and that all statements made herein of his own knowledge are true, and all statements made on information and belief are believed to be true, and that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

	Epoch Biosciences, Inc.	
By:	Washer	
Date:	16 OCT 2000	

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Attorney Docket No.: 17682A-005100US



VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS (37 CFR 1.9(f) & 1.27(c)) - SMALL BUSINESS CONCERN

Applicant or Patentee:			Rich B. Meyers, John C. Tabone and C	Gerald D. Hurst	
Application or Patent N	lo.:	5,824,796			
Filed or Issued:		October 20, 1998	GOLIGONUCLEOTIDES		
Title:		CROSS-LINKING	GOLIGONOCLEOTIDES		
I hereby declare that I	ım:				
			ss concern identified below: ess concern empowered to act on behal	f of the concern identified below.	
Name of Small Busines	ss Concern:		Epoch Biosciences, Inc.		
Address of Small Business Concern:			12277 134th Court NE Suite 110		
			Redmond, WA 98052		
for purposes of paying does not exceed 500 pc concern of the persons other when either, direct I hereby declare that re-	reduced fees to the ersons. For purpose employed on a full city or indirectly, on ights under contract	United States Patents of this statement, -time, part-time or t e concern controls o	t and Trademark Office, in that the nu (1) the number of employees of the b emporary basis during each of the pay r has the power to control the other, or conveyed to and remain with the sma	n as defined in 13 CFR 121.12, and reproduced in mber of employees of the concern, including those usiness concern is the average over the previous of periods of the fiscal year, and (2) concerns are a third party or parties controls or has the power to all business concern identified above with regard theyer, John C. Tabone and Gerald D. Hurst description.	e of its affiliates, iscal year of the affiliates of each o control both.
entitled CROSS-LINK	ING OLIGONUC	LECTIDES by mive	chior(s) Charles K. I et ie, Kich D. M	tyer, John C. Tabone and Geraid D. Harst desc	Albed III.
		fication filed herewit			
Ţ.] Applicati	on No	, filed , issued	;	
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below* and no rights to person thade the inventors. *NOTE: Se small entities.	o the invention are ion, or by any conce	held by any person, ern that would not qu	other than the inventor, who would nullify as a small business concern unde	I, concern or organization having rights in the in ot qualify as an independent inventor under 37 Ctr 37 CFR 1.9(d), or a nonprofit organization under ganization having rights to the invention averring	FR 1.9(c) if that 37 CFR 1.9(e).
Name:	·				
Address:					
] Individual		[] Small Business Concern	[] Nonprofit Organization	
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Name Address		<u> </u>			
Address					
] Individual		[] Small Business Concern	[] Nonprofit Organization	
ı	J marviduai		[] Binan Business Concern	[] Nonprosit o.Banzanen	
I acknowledge the duty the time of paying, the	to file, in this appli earliest of the issue	cation or patent, not fee or any maintenar	ification of any change in status resultince fee due after the date on which state	ng in loss of entitlement to small entity status prior us as a small entity is no longer appropriate. (37 C	r to paying, or at CFR 1.28(b))
further that these states	nents were made w 8 of the United Sta	ith the knowledge thes Code, and that so	nat willful false statements and the lik	ents made on information and belief are believed e so made are punishable by fine or imprisonmen rdize the validity of the application, any patent iss	t, or both, under
Name of Person Sionin	a.	ដ	liam G. Gerber≰ M	D	
Name of Person Signin Title of Person if Other			ef Executive Offi	cor	
Address of Person Signing:		12277	134th Court NE Suite 110		
or i diddii bigi	Ø-		ond, WA 98052		
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Signature	MAGIN	كلك	Date	16 OCT 2000	

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